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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	
Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Band and to Establish Rules and Policies for Local Multipoint Distribution Service;	CC Docket No. 92-297

Reply Comments of Video/Phone Systems, Inc.

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SUMMARY

Video/Phone was joined in its support for the Commission's reallocation of spectrum for LMDS by an overwhelming majority of commenters. The public interest would be well served by such action -- new services would become available, productivity would be enhanced, thousands of well paid, high tech jobs would be created, and substantial export opportunities would emerge for high-tech equipment.

Video/Phone additionally urges the FCC to adopt its proposal to allocate the 27.5-29.5 GHz band to LMDS, with each of two commercial licensees in each market receiving 1 GHz of spectrum. The Commission should reject requests to allocate less spectrum or to further divide up the band. In addition, the FCC should reject the proposals to set aside spectrum for MMDS operators, educational institutions, or minority applicants.

Video/Phone also urges the Commission to adopt its proposed application requirements, which were designed to deter speculation. The FCC should not relax those requirements as suggested by some commenters, but instead should utilize a "letter perfect" standard, prohibit interests in multiple applications in a market, require a firm financial commitment for funding the construction and operation of the system, use a one-day filing window, and prohibit transfers of any interest in licensees prior to completion of construction.

The only opponents to the reallocation are a handful of companies that want to preserve the spectrum for satellite services. Using Video/Phone's proprietary technology, however,

sharing between LMDS and the satellite services appears likely. To the extent that sharing concerns remain, however, the Commission should convene a Negotiated Rulemaking Committee to resolve the issues quickly. At any rate, the FCC should not be pressured into delaying LMDS for several years based on the extent of the NASA expenditures for its experimental satellite.

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Reply Comments of Video/Phone Systems, Inc.

Video/Phone Systems, Inc. ("Video/Phone") hereby replies to the comments submitted in response to the Commission's proposal to allocate spectrum for a wireless broadband service at 28 GHz and the FCC's proposed licensing and service rules for the new service.[1/] The response to the Notice was overwhelmingly positive, with the vast majority of commenters urging the Commission to allocate the 28 GHz spectrum to this exciting new service. As a result, Video/Phone believes that the record fully supports the Commission's proposal to allocate the 27.5-29.5 GHz band to LMDS, and to establish licensing and service rules so that LMDS will be available expeditiously.

1/ Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5 - 29.5 GHz Frequency Band and to Establish Rules and Policies for Local Multipoint Distribution Service, CC Docket No. 92-297, FCC 92-538, released January 8, 1993 (hereafter cited as "Notice").

I. The Public Interest Would Be Well Served By the Allocation of Spectrum for this New Service

As Video/Phone explained in its initial comments, the public interest would be well served by the Commission taking the action it proposed in the Notice. Many highly productive uses will be made of frequencies that are now lying fallow, including the provision of "wireless cable" services competitive with those provided by traditional wireline coaxial cable companies and traditional wireline copper telephone service. In addition, low cost alternative local access circuits for the distribution of high- and low-speed data traffic and video applications. Most importantly, Video/Phone believes the allocation of spectrum as proposed in the Notice will make possible the full development of other new, two-way broadband applications, such as distance learning, telemedicine, high quality two-way videoconferencing at DS-1 or higher rates, business and professional television, data base services, and metropolitan area LAN interconnection.

As a result, LMDS will provide significant benefits to the U.S. economy in three areas: enhanced productivity; increased employment; and export earnings. The specific business applications envisaged by Video/Phone that were described in greater detail in its petition for rulemaking and its initial comments in this proceeding will clearly enhance both private sector and public sector productivity. Moreover, since LMDS enjoys significant cost advantages over optical fiber in situations which do not offer a high concentration of demand, it will greatly speed the provision of on-demand broadband

networking to customers who are located inside and outside high-demand neighborhoods and to those whose needs are sporadic.

In addition, given the capabilities of this service and the ingenuity of service providers, the applications which cannot yet be specified may turn out to be as important, or more important, than those which can. LMDS will transform the nation's telecommunications infrastructure by providing ubiquitous, low cost, local broadband transmission. This, in turn, will bring about a vast expansion of the range of applications which entrepreneurial service providers or end-users will be able to bring to market.[2/] Assuredly, some successful new applications will come into being earlier than would otherwise be the case.

Prompt deployment of LMDS can also be expected to have a positive impact on employment. The first order effects of LMDS on employment arise from the manufacture of equipment, the

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[2/] Other nations are seeking to develop broadband capacity through the deployment of fiber optic networks. E.g., "Fiber Optics for Japan," New York Times (April 13, 1993) at p. D-8. It is urgent that we utilize the 28 GHz spectrum for the entirety of applications rather than just as a substitute for cable TV. Japan is planning to spend $375B to build a nationwide fiber optics network to provide: high growth imaging services in the medical field, new educational systems, two-way TV, electronic newspapers and a wide range of multimedia communications.

We have the ability to keep ahead of the Japanese if we grant licenses to smaller, fast-moving entrepreneurial firms in a timely manner. And, of course, our costs will be a small fraction of theirs. In addition, this technology will undoubtedly create exports and additional jobs if we are the first to the market.

Thus, we cannot afford the delay suggested by some of the commenters; instead, the Commission should proceed promptly with the allocation and licensing of LMDS.

installation of hundreds of local systems, and the operation of these systems. Altogether, this could be expected to generate thousands of new jobs within the next few years, far before any other known services proposed to the FCC.

The second order effects can be expected to be much larger. They will arise from activity at the level of particular applications, which will create new jobs relating to distance learning, corporate training, industrial television, production of multimedia, and so on. It should be noted that such applications are relatively labor intensive.

Video/Phone also expects LMDS to have a positive impact on export activities. The combination of a very large domestic market with a vigorous entrepreneurial culture historically has provided the U.S with a major advantage over other countries. Provided LMDS is allowed prompt entry into the marketplace, the U.S. lead in developing the concept and associated technology could provide exciting export possibilities. But now that "the cat is out of the bag," if the widescale deployment of this new service is delayed by regulatory obstacles, then it will be only a matter of time before our competitors adopt the concept, develop their own technology, and gain their own experience in operating such systems.

Two types of overseas market are of particular relevance. First, there is the market for cable television service in countries where penetration is lower than in the U.S. Experience in many parts of the world shows a strong popular demand for freer programming choice. This, coupled with the

continuing trend towards deregulation and privatization, provides obvious opportunities for LMDS to serve the video program delivery market. The second type of opportunity arises where there is a need to rapidly upgrade the telephone infrastructure, in particular in Eastern Europe, China, Africa, and South America. LMDS would be an attractive option for the feeder portion of the network, and could be configured so as to support cable television service at the same time.

All of these public interest benefits that flow from LMDS deployment are likely to arise more immediately than some of the alternative uses suggested by commenters, including point-to-point transmissions and still unproven fixed satellite services.[3/] Indeed, it will not even be known if the ACTS experiments will be successful for five years or more, whereas, LMDS can be operational within a matter of months from the date of licensing. For all of these reasons, Video/Phone urges the Commission to continue to move ahead expeditiously with the allocation of the spectrum and adoption of service rules so that these promising new services will be made available to the public as quickly as possible.

II. The Concerns of Satellite Interests Should Not Forestall the Allocation of Spectrum for this New Service

The only objection to the proposed allocation came from a handful of parties because of planned or potential use of

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3/ E.g., Digital Microwave Corporation; NASA.

portions of the 28 GHz band by satellite systems.[4/] These parties claim that LMDS and the potential satellite uses are technically incompatible, making co-primary sharing difficult or impossible. To some extent, it may be difficult to attempt to develop techniques for co-primary sharing between the Fixed Satellite Service ("FSS") and new 28 GHz transmission service proposed in the Notice, because there are only a limited number of concrete system designs. Nonetheless, Video/Phone is confident that effective sharing techniques can be agreed upon by all parties concerned.

A. Co-Primary Sharing is Feasible Between The New 28 GHz Service and 28 GHz Satellite Service Networks

Several parties submitting initial comments in response to the Notice assert that sharing between the new 28 GHz services proposed in the Notice and contemplated FSS use of the subject band may be problematic.[5/] Video/Phone recognizes that the development of a viable regulatory structure to facilitate co-primary sharing between new 28 GHz transmission services and existing primary services in the 28 GHz band is a desirable outcome in the instant rulemaking proceeding. As discussed more

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[4/] NASA; Hughes Space Communications Company; Motorola Satellite Communications, Inc.; Calling Communications Corporation; Loral Qualcomm Satellite Services, Inc.; Norris Satellite Communications, Inc.

[5/] See, e.g., Comments of the National Aeronautics & Space Administration; Comments of Motorola Satellite Communications, Inc.; Comments of Calling Communications, Inc.; Comments of Norris Satellite Communications, Inc.

fully below, Video/Phone's Broadband NarrowBEAM Cellular Transmission℠ Technology will dramatically enhance the capability of new 28 GHz transmission systems to operate on a co-primary basis with FSS networks without the imposition of burdensome operational restrictions.

As a preliminary matter, it should be noted that the technical characteristics of Video/Phone's Broadband NarrowBEAM Cellular Transmission Technology are markedly different from the 28 GHz transmission system parameters used in analyses presented in the NASA and Motorola Satellite comments.[6/] Among other things, Video/Phone's pioneering Broadband NarrowBEAM Cellular Transmission Technology employs state-of-the-art low-cost high gain antenna systems that can also achieve RMS sidelobe levels of -41.9 dB or better.[7/]

[6/] See NASA comments at Appendix B, page B-5; Motorola Satellite comments at Technical Appendix, tables 2 & 3.

[7/] It should also be noted that use of high gain antennas and other cutting edge transmission techniques in Video/Phone's proprietary system architecture yields frequency reuse capabilities far superior to the alternative 28 GHz network configuration described in the NASA and Motorola Satellite Comments. The dramatic increases in spectral efficiency afforded by Video/Phone's innovative technology will expand the possible menu of services that can be offered by new 28 GHz transmission systems, thus enhancing the benefits to the public that will result from establishment of the new service proposed in the Notice.

B. The New 28 GHz Services Will Not Cause Unacceptable Interference To 28 GHz FSS Operations

The substantial reduction in off-axis emissions facilitated by Video/Phone's system design will effectively preclude unacceptable interference to FSS networks resulting from new 28 GHz transmission systems. Even assuming a total saturation density of 629 three mile radius cells in the coverage area of a 0.367 degree spot beam in a 28 GHz satellite system such as NASA's ACTS,[8] the aggregate emissions of the terrestrial broadband transmission network into the subject satellite system would meet NASA's desired level of 10 dB below thermal noise.[9] Specifically, a system using Video/Phone's Broadband NarrowBEAM Cellular Transmission℠ Technology with the operational parameters described below will yield an aggregate RMS power density of -216.4 dBW/Hz of unwanted interference at the assumed geosynchronous satellite receiver.

Video/Phone System Parameters

System Demographics

Assumed Service Area (0.367 degree geosynchronous satellite spot beam coverage area)	17,808 sq.mi.
Number of 3 Mile Cells	629

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[8] Video/Phone selected this absolute "worst case" saturation density for a new 28 GHz system for purposes of analyzing potential for harmful interference into a typical geosynchronous satellite system. Actual operational configurations of new 28 GHz transmission systems are likely to yield service densities of a much lower order, at least in the first years of operation.

[9] See NASA Comments at 21.

Number of Hub Transmitters per cell	12
Total Hub Transmitters in Assumed Service Area	7548
Max. Subscribers per Hub Transmitter	400
Total Number of Serviceable Subscribers	3,019,200

System RF Characteristics

Channel Bandwidth For Typical Business Subscriber (two t1 circuits)	3 MHz
Max. Hub Transmitter power	8 dBW
Hub Antenna Gain	13 dB
Hub Max. EIRP	21 dBW
Hub RMS Sidelobe Level	-41.9 dB
Max. Subscriber Transmitter Power	-40 dBW
Subscriber Antenna Gain	36 dB
Subscriber Max. EIRP	-4 dBW
Subscriber RMS Sidelobe Level	-41.9 dB

Total Unwanted RMS Power Density at the Satellite

Assumptions: 10% of transmitters are at full power at any one time due to weather

90% of transmitters are typically operating at 12 dB below full power in clear weather

With the exception of 15 hub transmitters with their mainbeams directed towards the satellite, all unwanted radiation received by the satellite results from sidelobe emissions.

Satellite Spot Beam Parameters

Antenna Gain	53 dB
Beamwidth	0.367 deg.
System Noise Temp.	920 deg. K

Satellite Rx Noise Density	-199.0 dBW/Hz

Total RMS Power Density Calculation

755 Hubs at max. power	-227.0 dBW/Hz
6793 Hubs at typical power	-229.5 dBW/Hz
301,920 max. power subscribers	-215.8 dBW/Hz
2,717,280 typical power subscribers	-218.3 dBW/Hz
15 Hub Main Beams directed at satellite	-229.4 dBW/Hz
Aggregate Unwanted RMS Power Density at satellite	-216.4 dBW/Hz

Motorola Satellite Communications, Inc. ("Motorola") argues that new 28 GHz transmission systems should be precluded from operating in the 29.1-29.3 GHz band.[10/] Motorola claims that exclusion of new 28 GHz transmission systems from the subject 200 MHz band segment is necessary to preclude unacceptable interference to feeder uplinks for Motorola's proposed Iridium low-Earth orbit satellite system. Motorola's attempt to stake an exclusive claim to the 29.1-29.3 GHz band is wholly without merit. Taking account of the Iridium satellite receive antenna gain of 28 dB, a separation distance of 60 miles between Motorola feeder uplink earth stations and new 28 GHz transmission system hub transmitters, in combination with proper control by 28 GHz transmission system operators of main beam elevation angles in the vicinity of subject feeder uplinks will

satellites.[11/] Additionally, other interference avoidance techniques such as minimum elevation angle limits for feeder uplink transmissions could also be employed.

In its comments, Calling Communications, Inc. ("Calling Communications") indicates that it plans to file an application for a new low-Earth orbit ("LEO") satellite system that will operate in a portion of the 27.5-29.5 GHz band. Video/Phone is confident that techniques for co-primary sharing of the 28 GHz band between the new 28 GHz transmission service proposed in the Notice and the new LEO FSS system alluded to in the Calling Communications Comments can be developed. Until such time as Calling Communications files its contemplated application and discloses the proposed operating parameters of its system, it is not possible to determine exactly how sharing of the subject band can be accomplished. The Commission should not, however, delay the instant rulemaking proceedings in anticipation of future applications for authority to utilize the 28 GHz band.

[11/] If properly administered, separation distances of 60 miles will impose no undue burden on Motorola or operators of new 28 GHz transmission services. Contrary to Motorola's assertions, locating Iridium feeder uplink stations outside, or at the edge of metropolitan areas would have a relatively minimal impact on the cost of interconnecting the Iridium system to the public switched network. See Motorola Satellite comments at 4-5.

C. Contemplated FSS Earth-to-Space Operations Can Be Implemented Without Causing Unacceptable Interference To The New 28 GHz Services

Video/Phone is confident that techniques can be developed to preclude harmful interference into new 28 GHz transmission systems that may result from 28 GHz satellite uplink operations. Among other things, control of sidelobe power by new 28 GHz terrestrial transmission systems and satellite uplink operators is an approach that will dramatically reduce, if not eliminate any threat of harmful interference to new 28 GHz transmission systems resulting from satellite uplink transmission. Use of these types of interference avoidance techniques will allow co-primary sharing between new 28 GHz transmission systems and FSS systems under most operational scenarios, without a need for intersystem coordination.

D. Any Interservice Sharing Issues Not Resolved In This Pleading Cycle Should Be Addressed In A Negotiated Rulemaking

If, after full consideration of the comments and reply comments in the instant rulemaking proceeding, the Commission deems it necessary to examine further any issues associated with sharing between the new service proposed in the Notice and 28 GHz FSS systems, the Commission should do so through a negotiated rulemaking. If such further examination is necessary, Video/Phone urges the Commission to act expeditiously to initiate an appropriately chartered negotiated rulemaking proceeding. Video/Phone stands ready to assist the Commission by

participating in a negotiated rulemaking proceeding, in the event that any further inquiry into sharing issues is deemed necessary.

Even if technical solutions to sharing issues prove to be difficult to develop, the Commission must reject the efforts of several commenters seeking to "force" the Commission to allocate the band exclusively to satellite services based on the expenditures for NASA's ACTS satellite of nearly $1 billion. The ACTS program is an experimental one that has not been permanently licensed, and the level of expenditures should not sway the FCC's determination of what would be the best use of this band. Indeed, the Commission recently announced a policy addressing experimental licenses for satellite services in order to prevent companies from spending vast sums on an experimental program, and then using those expenditures to leverage the Commission into creating permanent allocations or awarding permanent licenses.[12/]

Moreover, the purpose of the Communications Act requirement of obtaining a construction permit prior to beginning any construction was to prevent the Commission from being pressured into the granting of a license because the applicant had already spent significant amounts of money in building the radio station. Congress did not want the FCC to be subject to such economic pressure or blackmail, and so incorporated the pre-construction licensing requirement of Section 319.[13/]

[12/] Policy Statement on Experimental Satellite Applications, 7 FCC Rcd 4586 (1992).

[13/] E.g., WSAV, Inc., 10 RR 402 (1955), aff'd sub nom WJIV-TV, Inc. v. FCC, 231 F.2d 725 (1956); Patton Communications, 48 RR2d (continued...)

Finally, it is not at all clear that the proposed reallocation will render the ACTS program totally worthless. Given the expected time frame for deployment of LMDS, the planned operational life of the ACTS satellite, and the limited number of earth stations contemplated to be operated with the ACTS satellite, coordination may very well be possible between the ACTS experiments and the LMDS licensees. In addition, presumably much of the information to be gathered under the ACTS program would be transferable to other bands.[14/] In sum, the Commission should move ahead with the allocation of spectrum to LMDS, and not be "bullied" into a multi-year delay simply because of NASA's expenditures.

[13/](...continued)
349 (1980); Christian Broadcasting of the Midlands, 60 RR2d 1391 (1986). An applicant can obtain a waiver of the pre-construction licensing requirement, but only by fully assuming the risk that an operating license will be granted. Similarly, a licensee operating under an experimental/developmental license is subject to being shut down by the Commission on a moment's notice, and must assume the risk that it will not be permitted to operate.

[14/] Video/Phone Systems suggests that there may be some alternative allocation schemes that would satisfy satellite needs outside the 27.5 - 29.5 GHz band:

a. Split the 17.7 - 19.7 GHz band to provide 1000 MHz each for satellite downlinks and uplinks.

b. Reallocate the 19.7 - 21.2 GHz band for uplink transmissions.

c. Recommend the already-allocated 29.5 - 30.0 Ghz band as a source of a further 500 MHz for uplink use.

d. Reserve additional spectrum above 30 GHz.

III. The Commission Should Adopt Its Proposal to Allocate the 27.5-29.5 GHz Band to LMDS and License Two Operators in Each Market, Without Any Set Asides

Some of the commenters suggested that the Commission allocate less than the full 2 GHz, or license more than two operators in a market, or set aside one of the two licenses for a particular class of operators. Video/Phone urges the Commission to reject each of these proposals. The Commission's proposal to allocate 1 GHz to each of two licensees will ensure that each

Commission reserve 1 GHz of the band exclusively to satellite services. Other commenters request that the FCC divide the 2 GHz among more than two LMDS licensees. The Utilities Telecommunications Council suggests that the FCC license four systems in each market, with 500 MHz assigned to each, and EMI Communications proposes four licenses in each market, with two for video services (750 MHz each) and two for data/voice (250 MHz each).[16/]

Video/Phone strongly urges the Commission to adopt the proposal set forth in the Notice of licensing two operators in each market, with 1 GHz each assigned to each. One of the anticipated services to be provided by LMDS will be the delivery of video programming services to residential customers, where LMDS will be competing against cable systems, DBS and video dial tone offerings of the local exchange carriers. In order to compete effectively, LMDS operators will require adequate capacity to offer a wide variety of entertainment selections. With current system designs, LMDS will be able to offer on the order of 50 channels in the 1 GHz, which will allow LMDS to

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15/ (...continued)
unnecessary. As proposed by the FCC, LMDS will be able to fulfill that need. PCS providers could apply to be LMDS licensees, or they could be customers of LMDS carriers.

16/ Video/Phone also urges the Commission to reject the proposal of EMI Communications Corporation to segment the band into data/voice and video distribution uses. Such a scheme would eliminate the enormous efficiencies inherent ins the LMDS service as envisioned by the Commission and most other commenters. In short, by limiting the ability to dynamically reconfigure capacity to meet the changing demands for service, these parties would reduce their ability to compete with other services.

compete against these other media. Assigning less than 1 GHz to each LMDS operator would substantially lower the capacity, and thereby reduce the ability to offer meaningful competition to cable or the other planned video programming services.[17/]

At least as important as video programming delivery will be the myriad other services that LMDS can support, all of which will require that the LMDS operator have access to 1 GHz of spectrum. For example, LMDS offers great potential for providing "narrowcast" television services on demand, using compressed digital transmission. A picture of acceptable quality will require 3 to 4 million bits per second of digital bandwidth. At modulation of one bit per hertz, this implies that a 1000 MHz block of spectrum would be capable of supporting about 300 concurrent digital video transmissions. Considering that switched video communications will be characterized by very long connect times, and that prospect potential in any metropolitan area will be measured in tens or hundreds of thousands, this capacity, even with frequency reuse, is clearly no more than adequate to support a competitive service.

Many LMDS licensees can also be expected to use the assigned spectrum for carrying digitized voice traffic. Due to the need for interconnection with other networks, DS-1 channels (1.544 Mhps) will probably become the standard for this service. At one bit per hertz, a 1000 MHz block could support

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[17/] Compared with the latest in wireline cable system design, 50 channels is not a lot. It will be difficult to compete against the 500 channel cable systems that cable operators are proposing to deploy.

approximately 600 half duplex channels of this size. As full

against other media for the wide variety of services that LMDS can provide, and to allow the service to take full advantage of the flexibility made possible by the new technologies, the Commission should reject suggestions that would result in an allocation of less than 1 GHz to each of the licensees.

B. The Commission Should Reject the Various Requests for Set Asides

Several commenters are seeking a Commission set aside of one of the two licenses for specific categories of potential operators, including a MMDS set aside,[18] an educational/noncommercial set aside,[19] and a minority set aside.[20] None of these requests have been adequately justified, and so should be dismissed. The Commission should apply the same criteria and eligibility standards to both the A band (27.5-28.5 GHz) and the B band (28.5-29.5 GHz).

The advocates of an MMDS set aside have failed to present any sufficient public interest basis for reserving one

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[18] A set aside for current operators of MMDS was proposed by the U.S. Interactive and Microwave Television Association; the Wireless Cable Association International, Inc.; and the Coalition for Wireless Cable.

[19] An educational/noncommercial set aside was advocated by RioVision of Texas, Inc., University of Texas; Box Springs Educators; University of California; Association of Public Television Stations, *et al.*; American Council on Education, *et al.* ("Educational Parties"); Cellular Television Associates; Suite 12; and RSW Communications, Ltd.

[20] A set aside for minority applicants was suggested by the National Association for the Advancement of Colored People.

half of the spectrum to the current wireless cable operators.[21] In the case of cellular service, the Commission set aside one half of the spectrum to wireline carriers to ensure that service was made available to the public in a timely manner. The FCC concluded that only the wireline carriers, who had developed the technology, had the expertise and resources to deploy service promptly.[22] MMDS operators do not possess any unique expertise with respect to LMDS, nor do they possess vast resources or innovative technology. Moreover, as the responses to the Notice and the previously filed applications indicate, there is a widespread interest from a broad array of companies, including Video/Phone, who expressed a willingness to commit the resources to rapidly deploy LMDS. Thus, an MMDS set aside is not necessary to ensure service availability, so that the Commission should reject the claims of entitlement advocated by the MMDS representatives.[23]

The FCC should also dismiss the proposals of some commenters to set aside one-half of the capacity for educational or non-commercial entities. It is highly doubtful that those parties will have sufficient need for all of the capacity. The

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[21] See also, the comments of GTE Service Corporation; Rochester Telephone Corporation; and Joseph D. Carney & Associates, arguing against an MMDS set aside.

[22] An Inquiry Into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems, 86 FCC 2d 469 (1981), recon., 89 FCC 2d 58 (1982).

[23] On the other hand, Video/Phone does not believe that it is necessary to preclude MMDS operators from seeking an LMDS license, but only that such applicants do not deserve a set aside.

experience with ITFS (including abuses and the Commission's reallocation of ITFS spectrum as a result of non-use) argues against setting aside one of the two licenses for a noncommercial entity. Indeed, several commenters admit they will not need all of the spectrum and explicitly seek authority to lease back excess capacity to commercial operators.[24/] Video/Phone also questions whether these parties will have the resources to actually construct the facilities necessary to provide service. The proposal to require the commercial licensee in the A band to construct the facilities for the noncommercial B band licensee suggests that the educational parties would not be in a position to make productive use of the spectrum absent outside, commercial funding.[25/]

Suite 12's support for a set aside for education appears to be little more than a thinly veiled attempt to eliminate potential intraservice competition. As the guaranteed licensee in at least one of the two largest markets in the country,[26/] Suite 12 would seem to be attempting to insulate

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[24/] E.g., University of Texas Comments at p. 6; Box Springs Educators at p. 1; University of California at p. 2. But cf., RSW Communications Comments at p. 9, suggesting that if the FCC allows the noncommercial licensees to lease their spectrum to commercial operators, then RSW Communications would support both bands allocated to commercial use rather than one used for an non-commercial set aside.

[25/] RSW Communications at p. 10.

[26/] The Notice granted Suite 12 a pioneer's preference for either the New York or Los Angeles PMSA, and Suite 12 is seeking licenses for both markets. Video/Phone believes the Commission was correct in limiting Suite 12's reward for being a pioneer to a single market. The Commission made clear in its Pioneer's

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